

Air – Revised Ozone

PM2.5 NAAQS

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History of Ozone Standard

- 1990 Clean Air Act Amendments/1-Hour Ozone Standard
 - 100 areas designated nonattainment
 - 44 areas redesignated to attainment, currently maintenance areas
 - Some maintenance areas are now violating
- 1997 Revision to NAAQS - 8-Hour Ozone Standard
 - Governors' initial recommendations in 1999
 - Designations expected in the next 2-3 years

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Particulate Matter....

Key Issues

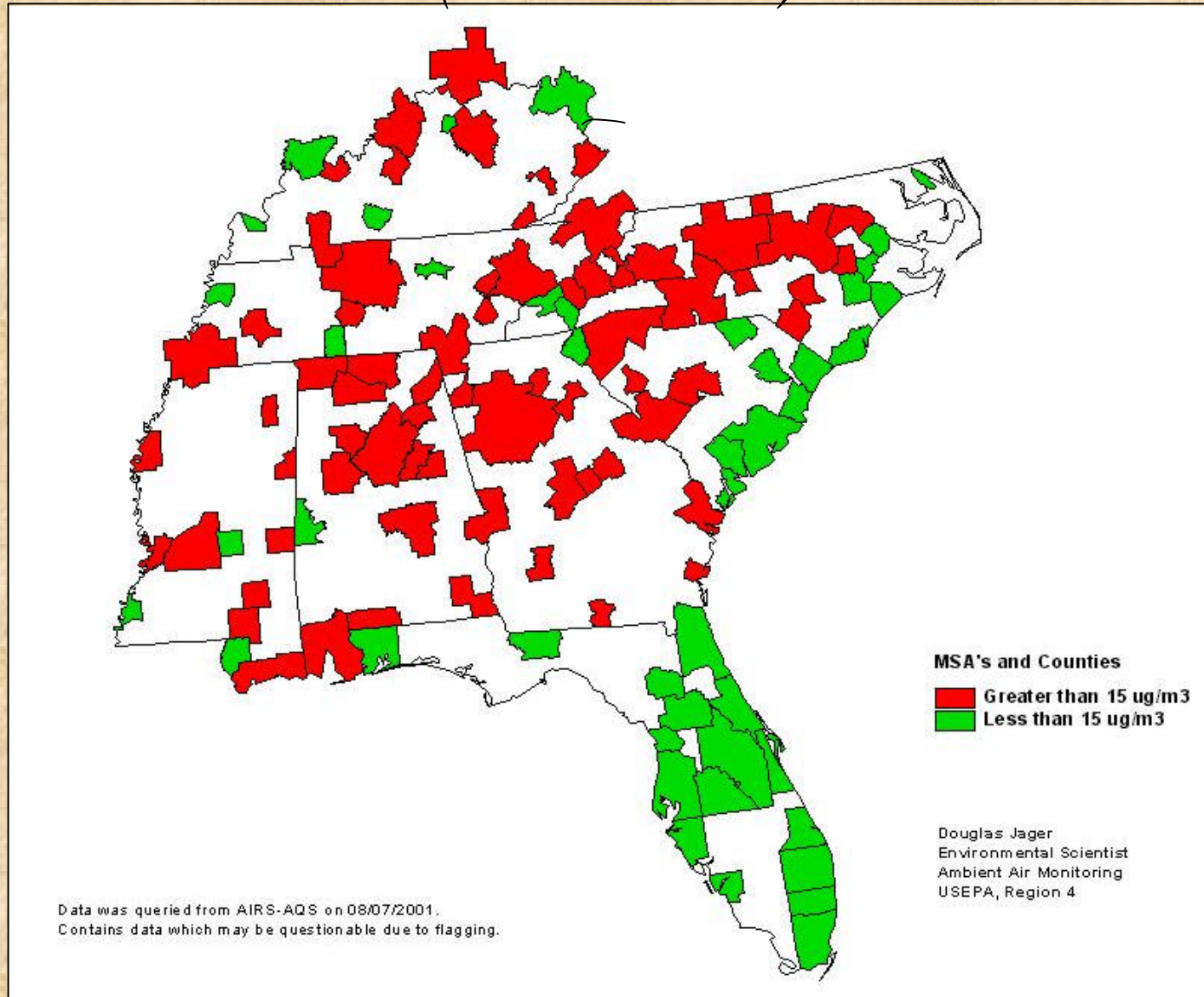
- Serious health effects - need action now
 - Begin with education and outreach
- Nature of the problem
 - Multiple precursors, regional variation
- One atmosphere - explore coordination of strategies and implementation process with haze and ozone

Key Issues (cont.)

- Regional coordination is important to develop technical expertise and effective strategies
 - However, regional strategies will not solve all problems
 - Need to evaluate local measures for early reductions opportunities as well

PM_{2.5} Mean Concentrations

(1999-2000)



Fine Particulate Matter (PM_{2.5})

- When will EPA complete review of the PM standards?
 - An extensive body of new scientific research has been published and is evaluated and synthesized in the Criteria Document, available for comment April 12, 2001, through July 12, 2001.
 - The unprecedented volume of new research has extended the completion of the Criteria Document by more than 6 months.
 - As a result, the overall schedule for the review of the PM NAAQS is anticipated to extend beyond the original target of July 2002, with finalization expected in December 2003.

Fine Particulate Matter (PM_{2.5})

(continued)

- When will EPA promulgate designations for the PM_{2.5} standard?
 - Designations must be based on 3 years of ambient air quality data.
 - Most areas will have data for 1999 - 2001.
 - All designations are scheduled to be completed by December 2005.

PM 2.5 Implementation

- Establish issue sub-groups for implementation - February 2002
- First face-to-face work group meeting in RTP - May 2002
- Brief management on first draft of issue papers in mid - July 2002
- Draft implementation rule - November 2002
- Proposal expected - 2003
- PM SIP Call

PM 2.5 Implementation - Outreach

- Outreach package is being developed as first major work group product
- Will be used to brief stakeholders on implementation development
- Expected availability in Summer 2002

Why Should You Care About Fine Particles?

Fine particles cause:

- Tens of thousands of premature deaths from heart and lung disease
- Tens of thousands of hospital admissions and emergency room visits
- Millions of school and work absences due to aggravation of asthma and other lung and heart diseases, and
- Reduced visibility in cities, national parks and other scenic areas

As Fine Particle Levels Increase, Risk Increases for:

- Premature death from heart and lung disease
- Aggravation of heart and lung diseases, with increased hospitalizations, doctor visits, and use of medication.
- Heart beat irregularities and heart attacks
- Coughing, wheezing, and chronic bronchitis
- And possibly for:
 - lung cancer mortality
 - infant mortality

Some Groups of People are Particularly at Risk

- People with heart or lung disease
- Elderly
- Children

These groups each include tens of millions of people, together representing over 40% of the U.S. population.

EPA Sets Standards to Improve Air Quality

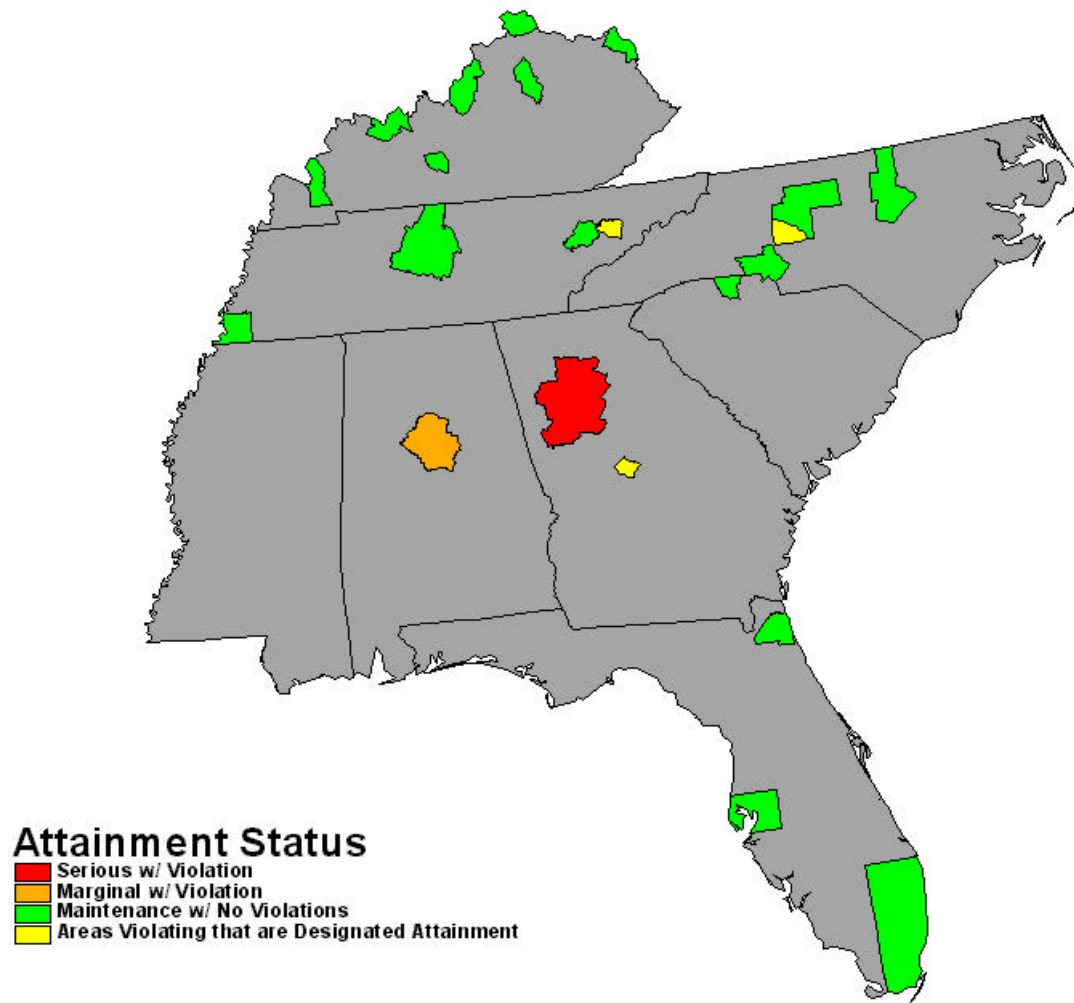
- 1997 - EPA set national air quality standards for fine particles
- Standards established to protect human health and the environment
- PM_{2.5} standards are based on:
 - annual, and
 - daily concentrations
- New standards withstood all legal challenges
- EPA also has programs to improve visibility in National Parks and Wilderness Areas

We Know Particles Affect Health

We Also Know That ...

- Many areas are at risk
- Particles include a complex variety of compounds and come from many sources
- Particles can be transported long distances
- Much can be done

Attainment Status of the 1hr Ozone NAAQS



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Ozone summary data were obtained from OAQPS Fast Track report (data through Oct. 31). Only monitors which have 3 complete years of data were used. Violation calculations based on actual exceedances as opposed to estimated exceedances.

Supreme Court Decision

8-hour Ozone Standard

- February 27, 2001 - Supreme Court decision
 - Court upheld constitutionality of the CAA and affirmed EPA's authority to set revised ozone and particulate matter standards
- Court determined that EPA has *authority to implement* a revised ozone standard, but said EPA must reconsider its implementation plan for moving from 1-hr standard to revised standard
- The Supreme Court remanded the case back to the D.C. Circuit Court of Appeals on *certain issues*, i.e., the level of the standard

DC Circuit Court of Appeals

- March 26, 2002, DC Circuit Court Decision upheld the 8-hour ozone and PM 2.5 NAAQS
- The Court said...

*“Rejecting the argument that the language and reasoning of our earlier decision determine the outcome of these remaining claims, and finding the challenged air quality standards **neither arbitrary nor capricious**, we deny the petitions for review except to the extent the Supreme Court's and our earlier decisions require further action by EPA.”*

Implications of 8-Hour Ozone Nonattainment Designation

- Implementation Guidance will provide guidance on boundaries and designations
- Areas will be subject to nonattainment area requirements
 - New Source Review
 - Conformity
 - Will apply one year after designation
 - Requires that area transportation plan show “conformity” with SIP motor vehicle emissions budget

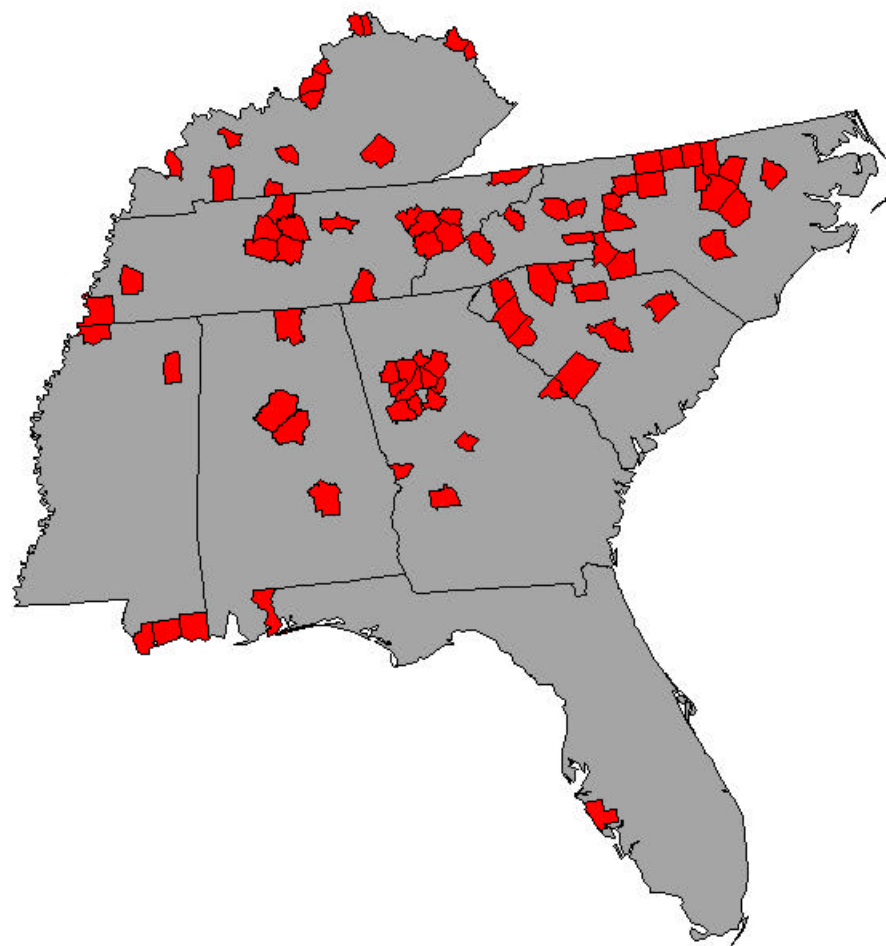
Implications of 8-Hour Ozone Nonattainment Designation (*continued*)

■ Development & Submittal of State Implementation Plan

- Schedule for SIP Submittal given at designation
- Attainment demonstration, control measures, modeling
- NO_x SIP Call, Tier 2 and Low Sulfur Gasoline controls expected to aid many areas in attaining

Counties Violating 8hr Ozone NAAQS

(1999 - 2001)



 Violating Counties

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Ozone summary data were obtained from the 2001 OAQPS Fast Track report (data through Sept. 30). Only monitors which have 3 years of data were used.

Principles Guiding EPA When Developing Implementation Approach

- Provide incentives for expeditious attainment of 8-hour standard Provide reasonable attainment deadlines.
- Have a basic, straightforward structure that can be communicated easily.
- Consistent with CAA and Supreme Court decision, provide flexibility to states and EPA on implementation approaches and control measures

Principles Guiding EPA When Developing Implementation Approach

- Emphasize national and regional measures to help areas come into attainment and, where possible, reduce the need for more expensive local controls.
- Provide a smooth transition from 1-hr O₃ NAAQS to 8-hr O₃ NAAQS implementation

Schedule

- Propose rulemaking on the implementation approach in summer of 2002 ... finalize the rule in mid-2003.
- 2003 - State/Tribes to update recommended designations ... promulgate air quality designations in mid-2004.
- State implementation plans (SIPs) - likely due in 2007-2008 time frame, with attainment dates ranging from 2007 to 2019 or longer.
- No plans to issue final designations of nonattainment areas until EPA issues a final implementation strategy for the standard.

Potential Schedule for Implementing the 8-Hour Ozon NAAQS and Related Actions

Under Subpart 1	Under Subpart 2	Action
2003	Same	Final rule on implementation of 8-hour ozone NAAQS
2004	Same	Designation of 8-hour nonattainment areas Reinstate the NOx SIP call with respect to the 8-hour ozone NAAQS
2005	Same	Complete new modeling for additional "coarse grid" states. Make additional SIP calls as results dictate.
2007	2007/2008	8-hour ozone NAAQS SIP attainment demonstration submission date
2007-2008	Same	Compliance with full NOx SIP call budgets for 19 States (assumes EGU at 0.15 lbs/mm BTU) EGU compliance for any "newly added coarse grid" States
2007	Same	Assess impact of reductions from NOx SIP Call
	2007*	Part D/Subpart 2 attainment date - marginal areas (3 years after designation)**
2009*		Part D/Subpart 1 default attainment date**
	2010*	Part D/Subpart 2 attainment date - moderate areas (6 years after designation)**
	2013*	Part D/Subpart 2 attainment date - serious areas (9 years after designation)**
2014*		Potential 5-year attainment date extension**, ***
	2019-2021*	Part D/Subpart 2 attainment date - severe areas (15-17 years after designation)**

* Two, 1-year extensions are possible.

** All potential attainment dates are "as expeditiously as practicable, but no later than" the dates presented.

*** Based on severity of nonattainment & feasibility of control measures

Web Sites

■ 8-Hour Ozone Implementation

- www.epa.gov/ttn/rto/ozonetech/o3imp8hr/o3imp8hr.htm

■ EPA Office of Air Quality Planning and Standards

- <http://www.epa.gov/oar/oaqps/>

■ Clean Air Markets Division (Trading Programs)

- <http://www.epa.gov/airmarkets/index.html>

■ Visibility

- <http://www.epa.gov/air/visibility/>